The Clinical Significance of Chronic Parametritis

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IT long has been recognized that the parametrium plays an important role in serious and extensive diseases of the uterus such as inflammations, carcinoma and endometriosis. The purpose of this report, however, is not to draw further attention to this complication but to a related and seldom recognized condition which is characterized by a demonstrable thickening of the sacro-uterine ligaments and an associated train of symptoms. It is not described in our standard textbooks of gynecology, with the exception of Emge's chapter on Inflammations of the Cervix Uteri in Davis' Obstetrics and Gynecology,[3] and his reference is mostly concerned with the complications of acute cervicitis.

MATERIAL

This study is based on 54 patients observed in private practice. The actual incidence of the condition is difficult to determine since many cases were observed in consultation only, but a rough estimate would indicate that it occurs in about 6 per cent of all patients seen by the gynecologist. This figure certainly directs particular attention to the importance of the syndrome.

The age distribution is given in Table 1 and it may be noted that it is a disease predominantly found during the active sexual life of women, with the maximal frequency between 25 and 35 years of age. It occurred much more frequently in multigravidae than in women who have had no pregnancies. Of the 54 cases, 16 had had one pregnancy, 15 had had two, 11 had had three or more, while only 12 were nulligravidae.

SYMPTOMATOLOGY

As shown in Table 2 chronic parametritis* may be responsible for many complaints, but the most constant one was pain in the lower abdomen and it was presented by 40 of the 54 patients. In 18 instances it was referred to both lower quadrants, while one or the other side was affected in each of 11 cases. The pain was described mostly as of a dull aching character but also as cramp-like, and frequently as "a sort of burning sensation." It was rarely localized to a definite area; in fact, the patient was often vague in attempting to point to "the spot that hurts."

TABLE 1.—*Age Distribution*

Years	No. of Cases
15 to 19	1
20 to 24	9
25 to 29	13
30 to 34	15
35 to 39	9
40 to 44	5
45 to 49	2
Total	54

TABLE 2.—*Symptoms*

	Cases
Pain lower abdomen	18
Vaginal discharge	12
Pain R.L.Q.*	11
Pain L.L.Q.†	11
Dyspareunia	11
Metrorrhagia	9
Backache	8
Dysmenorrhea	6
Pain defecation	5
Pain down leg(s)	4
Nausea	2
Unilateral backache	2
Frequency urination	2
Diarrhea	1

* Right lower quadrant of the abdomen.
† Left lower quadrant of the abdomen.

Although often worse during menstruation, the pain at times was relieved by the onset of a period. Of special importance from a diagnostic standpoint because they can be explained on the basis of the anatomic lesion are pains during sexual intercourse and during defecation. Recently, two women reported the occurrence of sharp pain while inserting or removing a contraceptive diaphragm. The irregular bleeding noted in nine instances consisted merely of "spotting" and was considered as a complication of cervicitis with erosion and not as bleeding from the fundus uteri.

The lesion is essentially chronic in nature. As described in this report it is not a disease for which patients are sent to a hospital or which demands instant medical attention. The patients do not have nausea, vomiting, fever, leukocytosis or other indication of an acute abdominal or pelvic lesion demanding emergency surgical care. Only nine patients of this series had had symptoms for less than one month, and while one of the remaining 45 had had them for less than two months, 44 traced their difficulties for periods of from more than three months

Presented before the San Francisco County Medical Society, October 9, 1945, and the San Francisco Gynecological Society, November 9, 1945.
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* Oria and Fraenkel,[5] although studying this problem from a different angle, call the lesion "parametritis posterior."

to several years. In one woman abdominal pain had occurred off and on for 15 years.

DIAGNOSIS

The diagnosis is established by the demonstration of a thickening and marked tenderness of one or both sacro-uterine ligaments. These structures differ from our usual concept of a ligament as they are not permanent cords and more correctly should be termed the "plicae recto-uterinae" or "the recto-uterine folds of Douglas." They consist of two crescentic thickened folds of peritoneum which arise from the uterus at about the level of the internal os, sweep laterally on each side of the rectum and become reflected on the posterior pelvic wall at about the level of the second and third sacral vertebrae. Between these two folds are found muscle fibers and a diffuse fibro-elastic meshwork, so that they have been considered important factors in supporting the uterus (Blaisdell,[1] Tandler,[7] Oria and Fraenkel[5]) and various surgical procedures have been advanced to utilize them in performing a suspension operation (Bovee,[2] Goffe,[4] Somers and Blaisdell[6]). In addition, many blood vessels and lymph channels are also found which lead to the left latero-sacral and hypogastric groups of glands.

In normal individuals the sacro-uterine ligaments are difficult to palpate but in the presence of a chronic inflammatory lesion it is relatively simple, and two methods are available. One, advocated by Somers and Blaisdell,[6] consists of drawing the cervix down with tenaculum forceps so that the ligaments may be felt with the examining fingers in the vagina. An even simpler procedure consists of a recto-vaginal examination. In this case the index finger in the vagina applies pressure to the posterior surface of the cervix in order to bring it forward and upward. This puts the sacro-uterine ligaments under tension so that they may readily be palpated by sweeping the middle finger in the rectum from side to side. The tenderness elicited by this procedure is usually very marked, and in some cases of accentuated parametritis the folds are thickened to the point that they give the impression of being bands of even as much as 1 cm. in diameter. In this series both ligaments were involved in all cases, but involvement was more pronounced on the right side in five instances and on the left in seven.

Tenderness is not usually elicited on moving the uterus from side to side, as contrasted with the response when this diagnostic manipulation is done in women with pelvic inflammatory disease. However, in four cases tenderness was found when the uterus was elevated by pressure from below upward.

In the differential diagnosis a prime consideration is endometriosis of the recto-vaginal septum and the sacro-uterine ligaments. This disease and parametritis may be confused, but in endometriosis the pain is greatly intensified at the time of menstruation, and on palpation the lesion tends to have a nodular character. It likewise fails to respond to the heat treatment advocated in this report.

This type of chronic parametritis is primarily a direct result of inflammatory lesions of the cervix uteri which was demonstrable in 34 of the 54 patients of this series (Table 3). In the other 20, however, it was not possible to find any existing cervicitis either on examination or by scanning the clinical history. The occurrence of retroversion-flexion of the uterus in 16 of the 54 suggests that it may be a factor, but doubt must be entertained on this point since this position of the uterus is present in about 25 per cent of all apparently normal individuals.

TABLE 3.—*Associated Lesions*

Cervicitis with erosion	24
Retroversion-flexion uterus	16
Chronic cervicitis	10
Cystitis	2
Cryptitis	1

TREATMENT AND RESULTS OF TREATMENT

The treatment consists essentially of two procedures. In the first place any inflammatory lesion of the cervix with or without erosion must be eliminated by recognized measures such as cauterization or conization. Secondly, the application of heat. This may be accomplished by diathermy, but a simpler method which can be conducted by the patient herself is to employ hot Sitz baths with continuous douche. The patient is instructed to sit in a bathtub with the water reaching up to her waist and as hot as she can tolerate. While seated, she gives herself a continuous plain hot water douche under low pressure. This should be done for 20 minutes once or twice daily except during the menses.

It has been possible to follow up 33 of the 54 patients in this series. Cauterization of the cervix was done, following a preliminary course of hot baths lasting from two to five weeks, in 13 cases; 19 were treated solely with hot baths, and in one instance no treatment was given.

The results are given in Table 4. It is noted that of the 33 patients 14 were completely free of symptoms and in them no evidence of thickened sacro-uterine ligaments could be made out after varying periods of time; definite improvement occurred in 13 instances; in six cases there was no relief. However, of those cured or improved, six later returned

TABLE 4.—*Results*

Result	Duration of Treatment	No. of Cases
Cure	1 month	2
	2 months	2
	3 months	3
	over 3 months	7
	Total	14
Improved	1 month	7
	2 months	1
	over 3 months	5
	Total	13
Not improved	1 month	2
	2 months	2
	over 3 months	2
	Total	6
Recurrences		6
No follow-up		21

with recurrence both of symptoms and the physical findings.

SUMMARY

The existence of a chronic parametritis is evidenced by a thickening and tenderness of the sacro-uterine ligaments which are readily demonstrated on recto-vaginal examination. This lesion is usually a sequela of cervicitis and may be associated with numerous symptoms, the most characteristic of which are lower abdominal pain, dyspareunia, backache, dysmenorrhea, and pain on defecation.

The treatment consists of attending to any existing cervical lesions and the use of hot Sitz baths and douches.

The results obtained in a small series of cases are given.

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REFERENCES

1. Blaisdell, F. E.: The anatomy of the sacro-uterine ligaments, Anat. Rec., 12:1, 1917.

2. Bovee, J. W.: The surgical treatment of the utero-sacral ligaments through the vagina in retroversion of the uterus, J.A.M.A., 39:12, 1902.

3. Emge, L. A.: Inflammations of the cervix uteri, Vol. II, Chapter I, Davis' Obstetrics and Gynecology, W. F. Prior Co., 1936.

4. Goffe, J. R.: Intra-abdominal shortening of the round ligaments per vaginam for the cure of retrodisplacements of the uterus, Amer. Gynec. (Oct.), 1902.

5. Oria, J., and L. Fraenkel: Estrutura dos ligamentos sacro-uterinos humanos, Revista de Obstet. e ginecol. de Sao Paulo, 4:137, 1940.

6. Somers, G. B., and F. E. Blaisdell: The anatomy and surgical utility of the sacro-uterine ligaments, J.A.M.A., 81:1247, 1913.

7. Tandler, J.: In Veit-Stoeckel's Handb. der Gynaek., Vol. I, pt. 1, J. F. Bergman, 1930.